



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/363,868	07/29/1999	MICHIAKI SAKAMOTO	12873	8658

23389 7590 01/08/2004

SCULLY SCOTT MURPHY & PRESSER, PC
400 GARDEN CITY PLAZA
GARDEN CITY, NY 11530

EXAMINER

NGUYEN, DUNG T

ART UNIT PAPER NUMBER

2871

DATE MAILED: 01/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/363,868

Applicant(s)

SAKAMOTO, MICHIAKI

Examiner

Dung Nguyen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-13 and 15-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of species A (claims 3-4 and 12-13) in paper dated 10/09/2003 is acknowledged. The traversal is on the ground that the defining characteristics of the species were present in the original claims and the subject application has already received two Office Action on the merits (election, page 7). This is not found persuasive because, the amended claims 5 and 14 recite a limitation of a common electrode forming over a pixel electrode which has not recited in the original claims 5 and 14. Although, the subject matter of the application has been examined on the merit; however, such limitation as recited in the amended claims 5 and 14 has not been examined yet. Therefore, the new restriction requirement has been issued. In addition, Applicants traverse the indication that only claims 1 and 10 are generic while claims 2, 6-9, 11 and 15-22 must be generic to both species (election, page 7). It should be noted that the restriction requirement dated 10/09/2003 stated that "Any claims not listed in the above groups will be examined in conjunction with the elected species of each group". In other words, although claims 1 and 10 are clearly generic claims, those claims 2, 6-9, 11 and 15-22 would be generic to both species as well.

The requirement is still deemed and is therefore made FINAL.

By the amendment dated 06/11/2002 and election dated 10/09/2003, claims 1-4, 6-13 and 15-22 are now pending in the application.

2. Applicant's arguments dated 06/11/2002 have been considered but are moot in view of the new grounds of rejection as follow:

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al., US Patent No. 5,852,485, in view of Kondo et al., US Patent No. 6,198,520.

Regarding the above claims, Shimada et al. disclose an in-plane switching (IPS) liquid crystal display (LCD) device having:

a pair of substrate (21, 212);

a liquid crystal layer (217) formed therebetween;

a thin film transistor (TFT);

a color filter (218);

a common electrode (213) and a pixel electrode disposed between the color filter and the liquid crystal layer, wherein the common electrode formed over the TFT are and also serve as a black matrix.

Shimada et al. do not disclose a light shielding layer and an inter-layer insulating film formed between the pixel electrode, the common electrode (e.g., inter-layer film formed on the common electrode, and the pixel electrode is formed on the inter-layer film). Kondo et al. do disclose an IPS LCD device having a light shielding (black matrix 14) formed above a TFT (21) as well as an insulating film (4) formed over a common electrode (2) and a pixel electrode (3) formed over the insulating film (see figure 8). Therefore, it would have been obvious to one

skilled in the art at the time of the invention was made to modify the Shimada et al. device having a light shielding layer above the TFT as well as a pixel electrode formed over a common electrode with an insulating film therebetween as shown by Kondo et al. in order to prevent a TFT from light by the light shielding film and to improve a display characteristic by avoiding cross-talk between the pixel electrode and the common electrode.

5. Claim 10-13 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al., US Patent No. 5,852,485, in view of Kondo et al., US Patent No. 6,198,520, further in view of Kim et al., US Patent No. 6,469,764.

Regarding claims 10-13 and 15-18, the modification to Shimada et al. disclose the claimed invention as described above except for liquid crystal is orientated substantially vertically to the substrate. Kim et al. do disclose a homeotropic alignment can be formed in an IPS LCD device (see abstract). Therefore, it would have been obvious to one skilled in the art to employ a homeotropic alignment in the Shimada et al. device in order to improve a picture quality in an LCD device (col. 3, ln. 44).

6. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al., US Patent No. 5,852,485, in view of Kondo et al., US Patent No. 6,198,520, further in view of Kim et al., US Patent No. 6,469,764, Xu et al., US Patent No. 6,023,317 and Ishikawa et al., US Patent No. 5,677,747.

Regarding the above claims, the modification to the Shimada et al. disclose the claimed invention as described above except for a compensation film disposed between the pair of substrate and polarizing plate. Xu et al. do disclose in figures 1-3 that an optical compensation film (e.g, positive or negative) can be disposed between a substrate and a polarizing film. In

Art Unit: 2871

addition, Ishikawa et al. disclose a pretilt angle formed by rubbing in which liquid crystal molecules will be felled when applying a voltage (figs. 3-4). Therefore, it would have been obvious to one skilled in the art to employ the optical compensation film in the Shimada et al. device in order to improve viewing characteristics (see abstract).

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al., US Patent No. 5,852,485, in view of Kondo et al., US Patent No. 6,198,520, further in view of Kim et al., US Patent No. 6,469,764 and Murai et al., US Patent No. 6,160,604.

The modification to Shimada et al. disclose the claimed invention as described above except for an organic based material for the liquid crystal layer. Murai et al. do disclose a liquid crystal material can be added an organic material and injected to the gap between two substrates (col. 7, ln. 26) for forming a liquid crystal layer. Therefore, it would have been obvious to one skilled in the art to add monomer or oligomers into a liquid crystal material as shown by Murai et al. in order to stabilize the rising directions of the liquid crystal molecules (col. 7, lines 27-32).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 2871


will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 703-305-0423. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

DN
12/29/2003



Dung Nguyen
Patent Examiner
Art Unit 2871